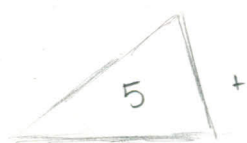
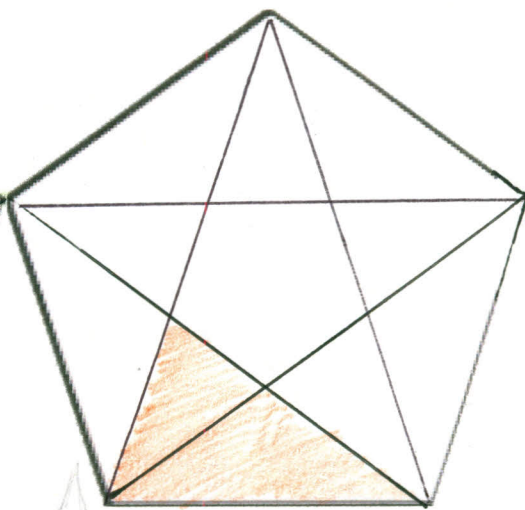
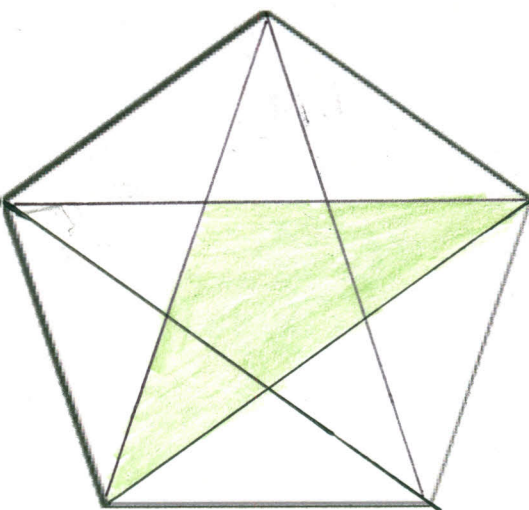
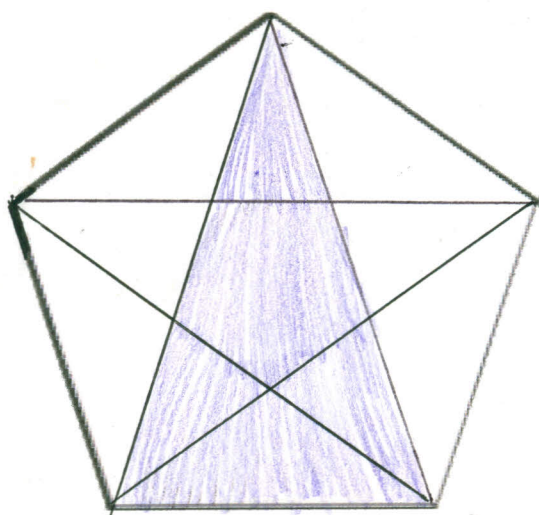
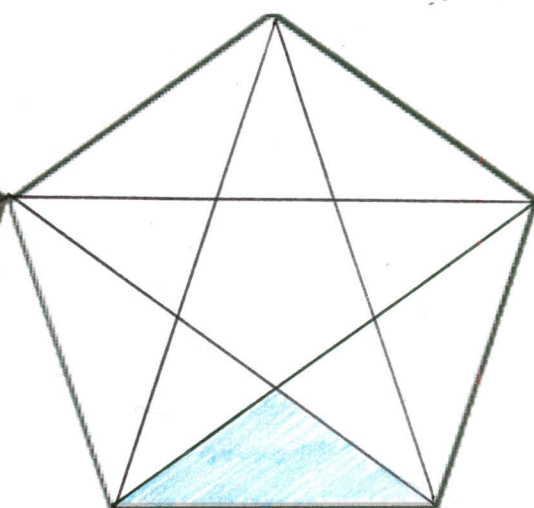
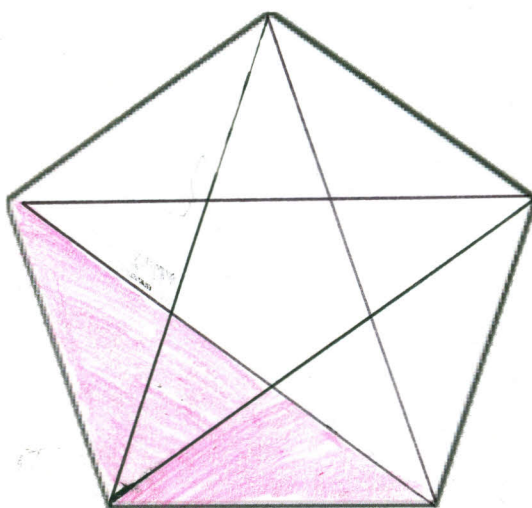
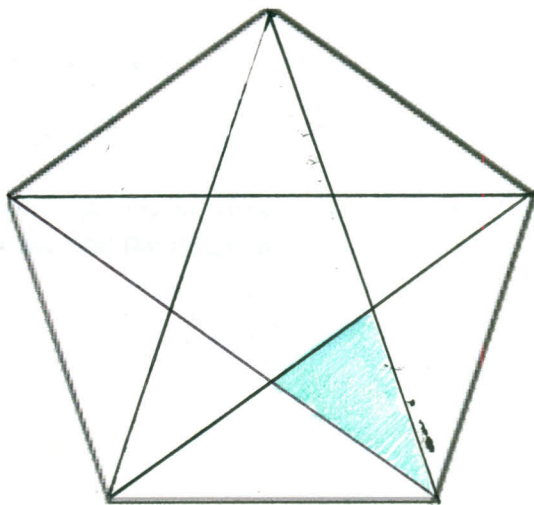
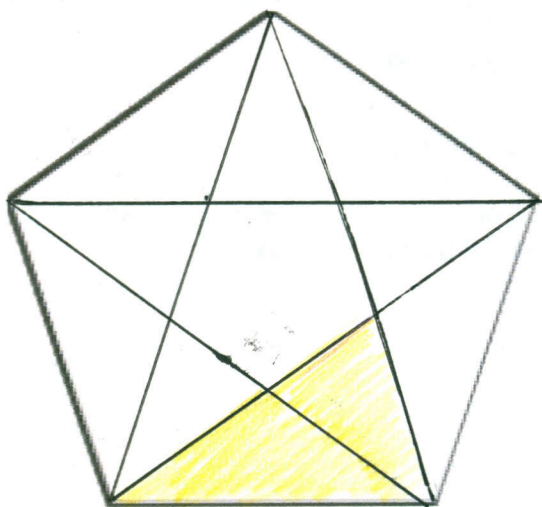


P.O.W. – Week #5  
Alexis Snock  
11-03-10  
Period 3

All diagonals have been constructed in a convex pentagon. How many triangles of any size are created by the sides and the diagonals?

First, I created a pentagon and connected all the vertices. Then I counted all the small triangles, the medium triangles and the large triangles. Every time I did this, I would lose count and have to start over. Then I had to figure out how to do it another way. I realized that I could just count the different types of triangles within the figure (see diagram). I figured out that there were seven different triangles. Since there are 5 vertices and five sides, you multiply that number by the number of different triangles, 7, by the number of each triangle, 5. Doing that, you get that there are 35 triangles in the pentagon.

At first, I had no idea what I was even supposed to do. Once I figured out what a convex triangle was and what it meant by connecting the diagonals, I knew what it was asking. The worst part was that I thought it would take forever to count all the triangles, until I figured out you didn't have to do that. The best part was that it wasn't as complicated as it looked.



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